2. FINANCIAL QUALIFICATIONS

The purpose of financial qualifications information is to enable the U.S. Nuclear Regulatory Commission (NRC) to determine whether the applicant appears to be financially qualified to engage in the proposed activities in accordance with the applicable NRC requirements. The information provided below demonstrates that Duke Cogema Stone & Webster (DCS) is financially qualified to construct the Mixed Oxide (MOX) Fuel Fabrication Facility (MFFF), including performance of engineering, procurement of materials, and quality assurance.

2.1 PROJECT COSTS

Under a contract with the U.S. Department of Energy (DOE), DCS will design, manage construction, and operate the MFFF. The Base Scope of Work under the contract covers engineering and design of the MFFF, as well as other activities related to the MOX portion of the DOE's surplus plutonium disposition program but not directly related to the MFFF (e.g., fuel design). The DOE contract also includes an option that covers construction, construction management, MFFF functional testing, preliminary startup, and other activities not directly related to the MFFF (e.g., fuel qualification). Another contract option is for completion of startup, transition to full operations, and the operations phase of the MFFF. MFFF startup will include testing with the introduction of DUO_2 (primarily for MOX fuel fabrication testing) and PuO_2 (primarily for aqueous polishing testing).

There are no plans for staging construction. The estimated costs include escalation, but since the project is fully funded by DOE there are no interest or financing costs. A cost estimate for design and construction of the MFFF has been provided under separate cover to the NRC. The cost includes procurement of materials and quality assurance activities.

Because of their uniqueness, the process equipment costs and building mechanical utilities costs for the MOX processing and aqueous polishing processes were developed using existing COGEMA data, vendor re-estimates of process units, or parametric comparison to the MELOX or La Hague purchased equipment.

The estimated cost includes adjustments based on a risk management analysis. A calculation based on a combination of Monte Carlo simulation and sensitivity analysis generates an "overrun profile," portraying the relationship of the total cost to the probability of an overrun. From this profile, the desired risk/opportunity contingency to be added to the base estimate is selected. A 90% confidence factor is used in the risk management cost adjustment. The risk management analysis includes two sets of analysis reviews: Allowance for Indeterminants and Estimate Contingency Analysis.

Allowance for Indeterminants is a review of the risk items applicable to an engineering analysis of potential risks. Allowance for Indeterminants is applied to the direct labor and material cost of the MFFF.

The types of items considered in the Allowance for Indeterminants analysis include the following:

- Site selection/conditions
- Specification complexity and future changes
- Quantity variations – design development
- Quantity level allocation
- Quantity takeoff accuracy
- Value engineering impact
- Value management impact
- Conversion of design information provided by COGEMA to US standards
- Design completeness
- Design/construction schedule.

Estimate Contingency Analysis is a review of the risk items applicable to a project management analysis of potential risks. Estimate Contingency Analysis is applied to the direct and indirect costs of the MFFF. The types of items considered in the Estimate Contingency Analysis include the following:

- Labor cost changes
- Equipment/material cost variations
- Labor productivity
- Quality level impact on labor or material costs
- Escalation cost
- Construction acceptance testing
- Construction complexity
- Market condition
- Method of accomplishment
- Quantity takeoff accuracy
- Price accuracy.

The estimated design and construction costs for the MFFF Project are reasonable and appropriate for the size and scope of the project. Projected operating costs will be provided with the license application for possession and use of special nuclear material.

2.2 SOURCES OF FUNDS

Full funding for design and construction of the MFFF, including engineering, procurement of materials, and quality assurance, is provided by DOE through its contract with DCS. DOE funds DCS under the Base Contract on a cost plus fixed fee basis.

While the final contract terms for the construction through preliminary startup option have yet to be negotiated, it is envisioned in the existing contract that the option will be funded on a cost plus fee and incentive arrangement (if any) basis. DCS expects that DOE will execute the construction option in time for the scheduled commencement of construction in late 2003.

The DOE funding is provided mainly through annual Congressional appropriations. The DOE appropriation for fiscal year 2001 is contained in Public Law 106-377; that for fiscal year 2002 is contained in Public Law 107-107. The United States and Russia have concluded a bilateral

agreement on plutonium disposition, "Agreement Between the Government of the United States of America and the Government of the Russian Federation Concerning the Management and Disposition of Plutonium Designated As No Longer Required for Defense Purposes and Related Cooperation." Under the agreement, the United States will dispose of surplus weapons-grade plutonium. The MFFF is intended to fulfill a major portion of the United States' obligation for disposition of that plutonium. In light of the MFFF's importance to the United States' obligation and Congressional support for this program, there is significant continuing federal Government incentive to adequately fund the MFFF and to continue providing the necessary annual appropriations to support the construction of the MFFF.

DCS will not finance or rely on the proceeds from any debt or equity securities, or any other source of external financing other than DOE funding, for any portion of the costs of the design or construction of the MFFF, nor will it rely on any revenue stream to cover such costs.

2.3 CONTINGENCY FUNDS

This section discusses DCS's plans for contingency funding for unforeseen engineering, design, or construction costs or potential revenue shortfalls. The design and construction cost estimates include risk management analysis (i.e., Allowance for Indeterminants and Estimate Contingency Analysis) adjustments.

DCS does not anticipate major (e.g., 30%) unforeseen cost overruns or funding shortfalls. If such a cost overrun or funding shortfall were to occur, DCS would seek additional Government funding. In the unlikely event of a lack of adequate funding to cover design, engineering, or construction activities, work on the MFFF would cease and thus there would be no adverse impact on public health or safety.

2.4 FINANCIAL QUALIFICATIONS

Because the MFFF Project is a fully funded U.S. Government project through construction, the specific financial resources and capabilities of DCS and its equity owners are not relevant to the determination of adequate financial resources to design and construct the facility. DCS is not relying on its financial resources, or those of any equity partner or parent company, to provide financing or funds for engineering or construction costs.

DCS is not a publicly held entity, and as such its financial statements are not publicly available. DCS has submitted under separate cover proprietary financial statements providing information concerning DCS's financial condition.

2.5 LIABILITY INSURANCE

This section discusses DCS's plans for providing the nuclear liability financial protection for the MFFF. DCS is a contractor of DOE and is thus fully covered by the DOE nuclear liability protection under the Price-Anderson Act as amended. Section 170(d) of the Atomic Energy Act provides that the DOE Secretary shall enter into agreements of indemnification with certain persons "... who may conduct activities under a contract with the Department of Energy that involve the risk of public liability and that are not subject to financial protection requirements under subsection b. or agreements of indemnification under subsection c. or k." In accordance

with this statutory authority, the contract between DCS and DOE contains the following standard "Nuclear Hazards Indemnity Agreement" from the Department of Energy Acquisition Regulations (DEAR 952.250-70), which fully indemnifies DCS and its subcontractors up to the statutory limit of liability:

> "(d)(1) *Indemnification.* To the extent that the contractor and other persons indemnified are not compensated by any financial protection permitted or required by DOE, DOE will indemnify the contractor and other persons indemnified against (i) claims for public liability as described in subparagraph (d)(2) of this clause; and (ii) such legal costs of the contractor and other persons indemnified as are approved by DOE, provided that DOE's liability, including such legal costs, shall not exceed the amount set forth in section 170e.(1)(B) of the Act in the aggregate for each nuclear incident or precautionary evacuation occurring within the United States or $100 million in the aggregate for each nuclear incident occurring outside the United States, irrespective of the number of persons indemnified in connection with this contract.
>
> (2) The public liability referred to in subparagraph (d)(1) of this clause is public liability as defined in the Act which (i) arises out of or in connection with the activities under this contract, including transportation; and (ii) arises out of or results from a nuclear incident or precautionary evacuation, as those terms are defined in the Act."

The DOE indemnity agreement with DCS provides full protection and coverage for public liability arising out of the construction and operation of the MFFF.